BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Comprehensive Development of Roads and Drains at Maruthinagara 3rd Main Road, Mathru Layout, Someshwara Nagara, Sharda Nagara and B Sector in Ward No-01, 02, & 04. of Yelahanka Division (PACKAGE NO-04)

Sl No	
	Comprehensive Development of Maruthinagara 3rd main and Cross Roads and surrounding areas in Kempegowda Ward no -01.
a	Comprehensive Development of Eastern Side of Kamakshamma Layout and Surrounding Areas in Chowdeshwari Ward No-02
b	Comprehensive Development of Roads and Drains at Mathru Layout Someshwara Nagara Sharada Nagara and Surrounding Areas in Ward No -04 of Yelahanka New Town Sub Division
c	Comprehensive Development of Balance Roads and Drains at B sector in Ward no-04 of Yelahanka new town Sub Division
d	

ABSTRACT ESTIMATE

Item No	Description of Work	Unit	a	b	c	d	Total Quantity as per Estimation	In Figures	Amount
1	Dismantling of existing structures like culverts,bridges, retaining walls and other structure comprising of masonry, cementconcrete, wood work, steel work, including T&P and scaffolding wherevernecessary, sorting the dismantled material, disposal of unserviceablematerial and stacking the serviceable material with all liftsas per specifications. iii)Dismantling Stone Masonry. B. Rubble Stone masonry in cement mortar.No. complete as per specifications and directions of the Engineer in charge.	Cum	21.60	39.96	0.00	2.21	63.77	449.54	28668.96396
2	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. complete as per specifications and directions of the Engineer in charge.	Cum	6.00	452.75	8.11	2.46	469.33	667.90	313463.4365
3	Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications and directions of the Engineer in charge.	Cum	970.75	2066.24	3282.04	5132.13	11451.16	215.28	2465205.854
4	Removing and refixing stone slabs of drains and pointing in CM (1:3) complete as per specifications and directions of the Engineer in charge.	Sqm	169.03	211.54	738.90	969.75	2089.22	111.30	232530.2973
5	Providing and laying Plain cement concrete of mix1:3:6 with OPC cement @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days Including cost of materials,labour, HOM curing form work, Scaffolding and Centering complete as per specifications and directions of the Engineer in charge.	Cum	433.24	273.11	547.24	641.42	1895.01	5421.90	10274564.48
6	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per specifications and directions of the Engineer in charge.	Cum	117.30	612.78	1050.64	1574.38	3355.11	7070.20	23721291.65
7	Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications and directions of the Engineer in charge.	tonne	7.46	39.23	63.30	94.63	204.62	65046.90	13309626.08
8	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc , complete as per specifications and directions of the	Sqm	1542.71	529.58	1477.80	1939.50	5489.58	2337.00	12829148.46
9	Suply And Fixing precast concrete Slab 15cm thick including Cost Of reinforcement as per design and drawing materail cost transportation here Charge of Machinary cutting the vertical face to get plain even surface etc complete with all leads and lifts conveynce charges labour charges inclusive of cost of all materials and as per the directions of the Engineer-in-charge of the work .	Sqm	237.00	232.80	0.00	0.00	469.80	2493.00	1171211.4

No	Description of Work	Unit	a	b	c	d	Total Quantity as per Estimation	In Figures	Amount
10	Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of all materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc , complete as per specifications and directions of the Engineer in charge.	Sqm	34.92	198.15	23.52	12.30	268.89	5418.00	1456846.02
11	Removing and resetting of kerb stones, complete as per specifications and directions of the Engineer in charge.	m	0	250.00	0.00	1827.50	2077.50	104.94	218012.85
12	Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications and directions of the Engineer in charge.	Cum	101.01	13.17	55.32	77.48	246.98	5747.32	1419473.094
13	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete., complete as per specifications and directions of the Engineer in charge.	Nos	3454.00	908.00	6147.00	4548.00	15057.00	432.48	6511851.36
14	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications and directions of the Engineer in charge.	Sqm	621.60	263.40	1106.40	1549.60	3541.00	84.80	300276.8
15	Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications and directions of the Engineer in charge.	Cum	69.74	0.00	208.65	0.00	278.38	63.94	17799.87296
16	Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications and directions of the Engineer in charge.	Sqm	1342.60	0.00	0.00	0.00	1342.60	41.34	55503.084
17	Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications and directions of the Engineer in charge.	Sqm	1828.40	0.00	0.00	0.00	1828.40	6.36	11628.624
18	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications and directions of the	Cum	0.00	0.00	61.43	0.00	61.43	1994.92	122537.961
19	Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications and directions of the Engineer in charge.	Cum	69.74	0.00	147.22	0.00	216.96	2001.28	434195.7075
20	Cleaning the existing WBM Road surface including removing of binding materials and other foreign matter with wire brushes and small picks sweeping with brooms or soft brushes and finally dusting with old gunny bags and bar or compressed air to receive bituminous treatment including cost of all materials, labhour, HOM of machineries complete as per specifications and directions of the Engineer in charge.	Sqm	303.20	0.00	640.10	0.00	943.30	22.26	20997.858
21	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications and directions of the Engineer in charge.	Sqm	2658.90	0.00	2012.33	0.00	4671.23	29.68	138641.958
22	Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications and directions of the Engineer in charge.	Cum	132.95	0.00	100.62	0.00	233.56	6407.70	1496590.422

Item No	Description of Work	Unit	a	b	c	d	Total Quantity as per Estimation	In Figures	Amount
23	Cleaning the existing black topped surface with brooms,soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials,labhour, HOM of machineries complete as per specifications and directions of the Engineer in charge.	Sqm	9422.80	0.00	5488.90	0.00	14911.70	5.30	79032.01
24	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications and directions of the Engineer in charge.	Sqm	9422.80	0.00	5488.90	0.00	14911.70	12.72	189676.824
25	Providing and laying Bituminous Concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment , rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications and directions of the Engineer in charge.	Cum	376.91	0.00	219.56	0.00	596.47	7537.66	4495972.985
26	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and directions of the Engineer in charge.	Sqm	361.00	0.00	240.45	0.00	601.45	454.74	273503.373
27	Cement concrete pavement.Construction of un-reinforced plain cement concrete for pavement, using a grade concrete M30 over a prepared base with OPC coarse aggregate @ 0.69cum fine aggregate @ 0.46cum,coarse and fine aggregate confirming to IS:383-2016,with superplastisiser @3lts confirming to IS9103-2008.mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing) & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine,and curing including cost of all materials,labour,hire charges of machineries,all lead	Cum	385.65	0.00	0.00	0.00	385.65	5210.96	2009606.724
28	Road markers/ Road stud , Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS (Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering thje lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97-DO III Dt 11.06.1997.The height, width and length shall not exceed 50mm, 100mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree.The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19mm and height not less than 30mm)from the body is to be a minimum value of 500kg. Fixing will be by drilling holes on the road for the shanks to go inside, without ails and using epoxy resin based adhesive as per manufacture's recommendation and complete as per specifications and directions of the Engineer in charge.	Nos	0.00	0.00	433.00	0.00	433.00	357.22	154676.26

Administrative Sanction for Rs. ...10.00 Cr...
[One Ten Crore Rupees Only]
is accorded under head ...P-3075...
B'lore city in charge Minister...
Discretionary Grants...
Registered as CE No. ...78... Subject
to conditions contained in enclosed me
No.BBMP/EE/YNW/DAS/78/2020-21 Dt. 17/11/2020

Executive Engineer

Technical Sanction
Accorded For Rs 10000 Lakhs only
Head of A/C...P.3075...
CE/NO : ...53... Dt...

Grand Total	83752534.41
GST Charges (12% of estimated cost)	10050304.13
Tender Premium (5% of estimated Cost)	4187626.72
DPR Charges (1% of estimated cost)	1000000.00
Project management And Consultancy Charges(1% of estimated cost)	1000000.00
Miscellenious and rounding	9534.74
Total Amount	100000000

RUPEES TEN CRORE ONLY

CERTIFICATE:
1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಯಲಹಂಕ ವಿಭಾಗ